EX PARTE OR LATE FILED

AT&T

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October 11, 2000

Ms. Magalie Roman Salas, Secretary
Federal Communications Commission
445 12th Street, S.W. – Room TWB-204
Washington, D.C. 20554

Re: Notice of Written *Ex Parte*
Petitions for Reconsideration of the Third Report and Order,
CC Docket No. 96-98

Dear Ms. Salas:

Please be advised that a copy of the attached correspondence was delivered to Dorothy Attwood today.

I have submitted two copies of this Notice in accordance with Section 1.1206 of the Commission's rules.

Sincerely,

Robert W. Quinn, Jr.

Attachment

No. of Copies rec'd 0+1
List A B C D E

Robert W. Quinn, Jr.
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October 11, 2000

Ms. DorothyAttwood
Chief Common Carrier Bureau
Federal Communications Commission
445 12th Street, SW Room TWB-204
Washington, DC 20554

Re: Notice of Written *Ex Parte*
Petitions for Reconsideration of the Third Report and Order, CC Docket No. 96-98

Dear Ms. Attwood:

The Commission's Third Report and Order in the aforementioned proceeding established a 3-line ceiling on the availability of unbundled local switching ("ULS") from incumbent local exchange companies ("ILECs") in certain areas.[1] Effectively, that means when an end user customer has more than three lines in its business or residence, the CLEC cannot use the UNE-P configuration to serve that customer. The only alternatives a CLEC has in those circumstances are: to build facilities directly to the end user; to establish a collocation presence in the serving end office and individually "hot cut" each customer loop to the CLEC collocation cage; or to obtain an Enhanced Extended Loop (a combination of loop/ transport UNEs) from the ILEC and deliver those facilities to a distant CLEC collocation.[2] Aside from the operational difficulties

[1] A precondition of limiting access to ULS is that the ILEC make loop/transport combinations (called enhanced extended links ("EELs") wherever the ILEC denies access to ULS as a UNE.

[2] The assumption that a CLEC can obtain a DS1 loop/transport combination at UNE rates is questionable. That is because ILECs have imposed use restrictions on those circuits which require CLECs to certify that they are providing a significant portion of the end user's voice local exchange service over those facilities; a standard which the ILEC itself never has to meet. The certification process requires a CLEC to know the totality of the number of end user customer lines as well as the percentage of "local" voice traffic minutes (as

inherent in the intensively manual process of performing coordinated hot cuts for each loop that must be converted from the ILEC, CLECs are also face a significant economic disadvantage compared to the ILEC. Consequently, for all practical purposes CLECs are effectively foreclosed from participating in a large segment of the business services market.

As AT&T and other CLECs have previously shown, the simplest and most easily enforced method to eliminate this impairment is to establish a DS1 ceiling on the availability of ULS; meaning that ULS must be provided to CLECs unless the CLEC has ordered a DS-1 (or higher capacity) loop facility to serve the customer. Alternatively, the Commission could adopt a proxy that is based on the choice that an economically rational CLEC would make in deciding whether to serve a customer using its own switch. As shown below, the crossover point for this decision is typically in the range of 18-20 lines.

In a UNE-P arrangement, a CLEC serves its customer by purchasing, as unbundled network elements, a loop, local switching and shared transport from the ILEC. An economically rational CLEC will seek to replace an ILEC's ULS element when it can economically offset its increased transport costs (which are necessary to move traffic from the serving wire center ("SWC") serving the end user to the CLEC's switching node) by efficiencies gained in obtaining higher capacity local loops.[3] In general, this means a CLEC has two alternatives.

> First, the CLEC can collocate in the ILEC serving wire center ("SWC") serving the end user customer, obtain a DS-1 loop UNE from the ILEC and self-provision the transport between the collocation and its switching node. (Attachment 1, Figure 1-1) This option is the most time consuming and the least certain as to the costs involved.
>
> Second, the CLEC can collocate in only one (or a few) SWCs in a larger area, obtain a DS-1 UNE loop and UNE dedicated transport combination (EEL) to its collocation, and self-provision transport to its switching node. (Attachment 1, Figure 1-2). The viability of this option depends on whether EEL loop-transport UNE combinations are available and the use restrictions that are applicable to such arrangements.

Both alternatives share two common assumptions. First, they each assume the existence of channel bank functionality at the customer premises, so that individual voice channels can interface with the DS-1 facility. Second, they each assume the CLEC's switching node includes equipment that interfaces with high capacity transport to enable the efficient use of its switching capacity, i.e., that

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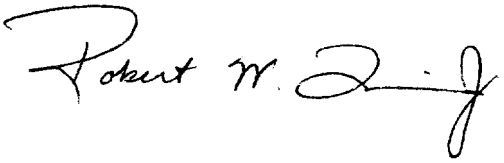
opposed to "long distance" minutes) that will travel over those circuits *before* the CLEC is permitted to obtain those circuits at UNE rates.

[3] This analysis assumes that ILEC and CLEC switching costs are roughly equivalent.

there is a hub concentration function to assure that the switch's capacity is not consumed by idle lines.

Attachment 2 sets forth an economic analysis of these configurations.[4] That analysis shows that, in the typical case, there must be at least 19 voice grade loops serving the end user before a CLEC can make up for the additional transport costs it must incur to carry the customer's traffic to its switching node.[5] Moreover, there are some instances in which a use of a DS-1 cannot be justified on the basis of cost savings. Therefore, to the extent the Commission decides to establish a line-based (rather than facility-based) rule regarding the availability of unbundled local switching, it should establish a threshold of no less than 19 lines. In addition, the Commission must assure that EELs remain available and are not subject to any use restrictions that would impair CLECs' ability to use them in this manner.

Best regards,



cc: Glenn Reynolds
Michelle Carey
Jon Reel

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[4] The analytical method used in the attached analysis was straightforward. For example, CLEC investments were projected, generally on the basis of publicly available information. The most substantial investments necessary included the channel bank, the digital cross-connect system and hub concentrator in the CLEC switching node and the DS-3/DS-1 multiplexer in the CLEC's collocation. Utilization of the channel bank was assumed to be 75% (which is about the crossover point, based on the capacity of DS-1 facilities) and an 85% utilization factor was used for the other equipment. A 3-year amortization was applied to the channel bank (consistent with the assumed 3-year customer serving arrangement). CLEC office electronics were amortized over 10 years and a 23-year period was used for collocation, the node and the fiber facility. The cost of money applied was 10.01%. A full description of the methodology is included in Attachment 2.

[5] This calculation is consistent with the statement of Richard Chandler, dated February 16, 2000 and submitted in connection with AT&T's Petition for Reconsideration herein (at 2) as well as the evidence submitted in ex partes filed by other CLECs, including the PACE Coalition and Birch Communications.

Attachment 1

Methodology for Quantifying Loop Cross-Over

General Description of Methodology

The purpose of this analysis is to quantify approximately how many telephone lines a customer must have at a single location in order for it to be more economical for a CLEC to employ a high capacity (i.e., DS-1) loop or an Enhanced Extended Loop consisting of DS1 loop/transport combination with associated customer premises equipment, rather than voice grade UNE loops terminating on an ILEC switch. Both facilities build scenarios assume that individual loops are multiplexed onto a high capacity facility and are transported to a remote location for switching. A simplifying assumption employed throughout the analysis was that once the facility was terminated efficiently on a switch port, all costs of switching and transport after that point are identical, regardless of whether the ILEC provided the functionality or a CLEC provided the functionality. Given this assumption the cross-over point is determined by dividing the estimated cost of the DS-1 alternative by the cost of a VG loop UNE. In both scenarios, the costs of installing the channel bank or the costs to re-terminate inside wire (associated with the active POTS loops) to the channel bank were excluded. As PACE has explained in ex partes submitted in this proceeding, those cost may be material. As a result, the calculated level presented in this analysis of the point at which it becomes economical to replace individual POTS loops with a high capacity loop or a combination of loop and transport UNEs is likely understated.

Amortization:

When amortization was necessary, the conversion from a one-time amount to a monthly amount was accomplished through the use of the EXCEL PMT function. This function expresses the one-time amount as annuity from a present amount. For all amortization, a 10.01% cost of money was utilized.[1]

Non-recurring charges (NRCs) associated with installing the necessary CLEC infrastructure, because they tended to be quite large, were amortized. The UNE NRCs were amortized over a 5 year period (which is a conservative estimate of time that a customer might commit to use such a configuration) where the element was dedicated to the customer (as would be the case for a loop). The

[1] This assumption is consistent with capital cost inputs for the HAI model.. In addition, the assumption is consistent with

NRCs associated with interoffice facilities were amortized over the life of circuit equipment (about 10 years). Such a period is reasonable given that there is no term agreement for UNEs. Capital investments were amortized using expected average lives for the class of equipment. Outside plant related investments (fiber, and fiber distribution panels) and up-front collocation costs were amortized over 23.08 years. Transmission electronics (OC48, 3:1 DCS, hub concentrator, and channel banks) were amortized using a life of 10.18 years.[2]

Maintenance:

With one exception, no loading for maintenance was incorporated into architecture analyses. The exception was that maintenance activities added 1% to the annual cost for the customer premises channel bank and the DS-3:1 multiplexer whenever those elements were employed in the architecture. The adjustment was made to account for the added costs likely to result due to higher activity associated with these elements (i.e., when circuit re-arrangements/modifications are made follow-on trouble are most likely to occur in these elements. The channel bank adjustment and the maintenance adjustment for the DS-3:1 multiplexer affects both facilities build analyses.

Loop Costs:

Where de-averaged loop rates existed, the rates for the lowest cost zone were employed for the voice grade loop and the DS-1 loop UNEs. This was done because the approach would most closely emulate the density zone 1 and top 50 MSA limitation upon the use of the unbundled local switching element. It is possible that a averaged loop cost analysis could be reflected; however, that adjustment would involve weighting of individual rates that would be somewhat subjective. If such a weighting were incorporated the cross-over level (on average) would likely be somewhat reduced.

Architectures:

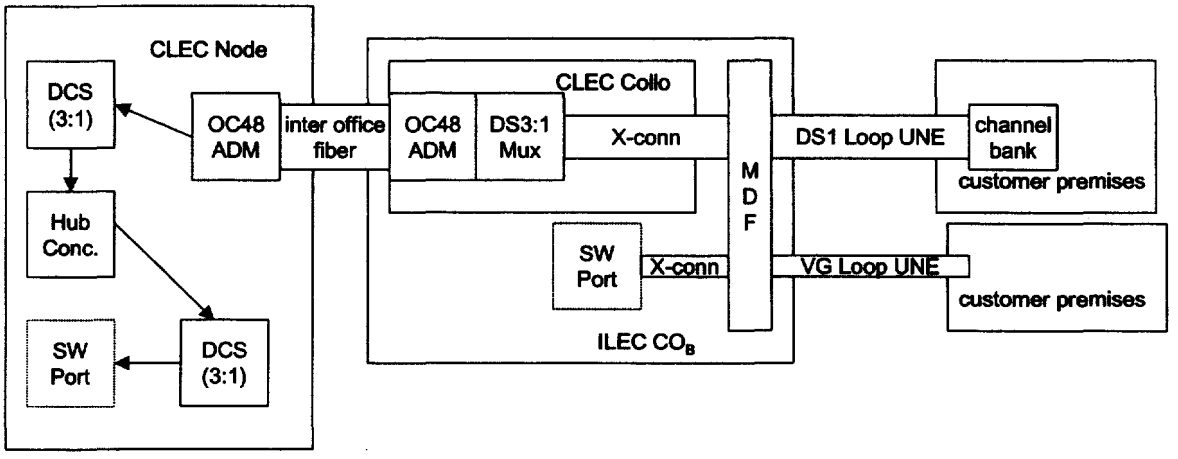
Two alternative DS-1 facilities build architectures were evaluated:: Facility Build with loop UNEs, and UNE (EELs) infrastructure. Each is discussed in the following material.

[2] Both these life assumptions are consistent with inputs used in the FCC Synthesis model for Account 2232.2 (Digital Circuit Equipment) as well as the national average life assumption set used in the HAI model.

Facility Build Architecture

In this alternative a CLEC deploys the transmission path, with the exception of the DS-1 loop that is obtained as a loop UNE from the ILEC. This architecture is shown in Figure 1-1.

Facility Build Alternative
(Figure 1-1)



The equipment configuration provides the basic transmission functionality to connect the customer premises to the CLEC's switch port. The individual elements employed in this configuration serve the following purposes:

DS-3:1 Mux – Assigns multiple DS-1 signals onto a single DS-3 facility.

OC48 – Optical carrier electronics that provide the signal interface to the fiber facility. Specifically, this equipment converts an electrical signal to an optical signal and assigns individual DS-3 facilities to particular time slots on the fiber facility.

Fiber Distribution Panel (FDP) – (not shown) Provides the physical interface between the OC48 and the fiber outside plant.

DCS (3:1) – Digital Cross-connection System provides the ability to direct particular DS-1 time slots within as DS-3 (i.e., to groom the DS-3) to a specific port without demultiplexing the entire DS-3.

Hub Concentrator – Permits the use of less expensive D4 channel banks (by converting voice traffic to GR303 protocol and provides improved utilization of the switch port by performing a 4:1 concentration function.

Channel Bank – Provides the interface between individual voice grade circuits (in this case customer inside wire) and a DS-1 facility

In virtually all instances, the investments were drawn from the most recent Hatfield Model Input Portfolio. Accordingly, costs for as the channel bank, OC48, FDP and the DCS were based upon figures in Bell South's August 7, 1998 ex parte to the FCC in Dockets 96-45 and 97-160. The cost figures for collocation, hub concentrator and DS-3:1 multiplexer reflect AT&T internal engineering estimates and, in combination, amount to less than 12% of the total annual cost.

Channel bank utilization was assumed to be 79% (19/24) which was the approximate cross-over point for converting VG loops to a DS-1 architecture. For all other equipment utilization was assumed to be 85%.

Charges for the individual loop UNEs were drawn from state interconnection agreements, SGATs and/or tariffs as applicable. To provide a broad perspective across states, rates were gathered for TX, CA, NY, MA, IL, MI, GA, and FL[3]

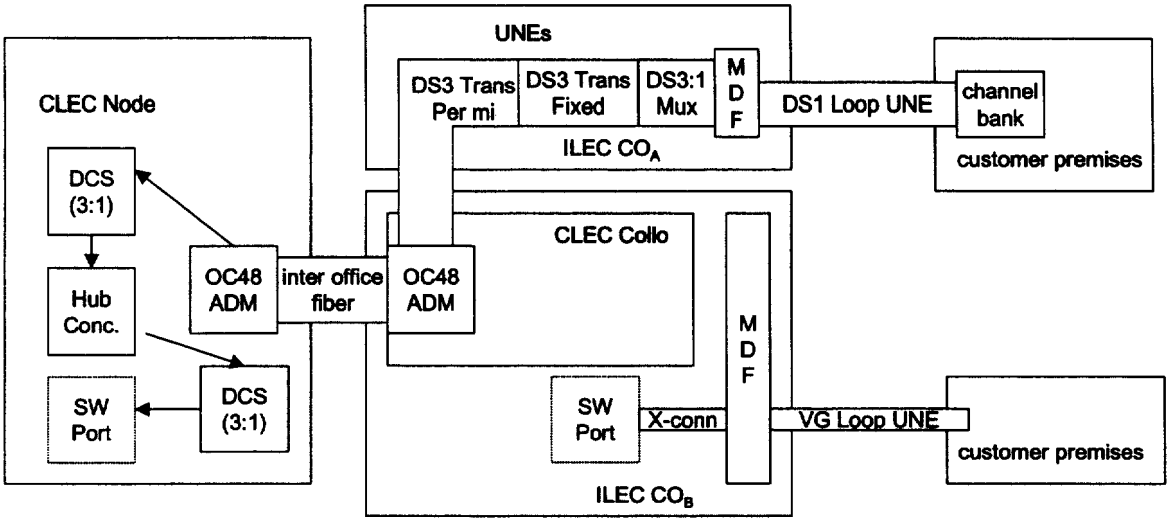
UNE (EELs) Architecture

The second architecture evaluated is a UNE-based architecture that combines a DS-1 loop UNE with DS-3 interoffice transport to CLEC collocation where a cross-connection is made to a CLEC-provided facility connecting to its switching node. When a loop UNE and UNE dedicated transport provided as a combination, the configuration is considered an enhanced extended loop (or EEL).[4] This configuration is illustrated in Figure 1-2

[3] An attempt was made to include Qwest states (CO and WA); however, at the time insufficient information was available with respect to non-recurring charges.

[4] Although unique rates for the EELs may ultimately be made available by the ILECs, this analysis employs existing individual rates for the loop, transport and associated NRCs as they now exist.

UNE (EELs) Alternative
(Figure 1-2)



The CLEC equipment employed in the collocation and the CLEC switching node is identical to a subset of the elements employed in the Facility Build with UNE Loops as described above. The costs of those elements were incorporated (without modification) into this analysis.

Note that the loop UNE, cross-connection and associated non-recurring charges gathered in this aspect of the analysis were used in the other analyses as well. More specifically, the VG loop UNE charges were used as the divisor in all three analyses. The DS-1 loop UNE was used both facilities build analyses.

Conclusions:

As shown in the accompanying spreadsheet analysis, the cross-over point where it becomes more economical for a CLEC to multiplex individual voice grade circuits onto a high-capacity loop and backhaul facilities connecting to a CLEC switch node is a range rather than a single point (rather than provide service to the customer using UNE-P). The cross-over is largely affected by the relative cost of the DS-1 loop compared to compared to the VG loop (including the associated NRCs). In some instances the replacement of VG loop cannot be justified and it would always be more economical to employ ILEC switching. Nevertheless, in many cases the change out can be justified. Examining both architectures (UNE-L and EEL), the average cross-over point is 18 and 19.6 for

the UNE-L facility build and EEL architectures, respectively.[5] Accordingly, should the replacement of VG loops and ILEC switching with a DS1 loop and backhaul to CLEC remote switching be economical, it will likely occur if in the range of 18 to 20 voice grade loops (with a central tendency to 19 loops) are served by a CLEC and connect to a single customer location.

[5] The high and the low result was thrown out for each option and the cases where no cross-over was evident were ignored to minimize the impact of potential exceptional situations.

Attachment 2

Infrastructure	TX	CA	NY	MA	IL	MI	GA	FL	Avg
Facility Build	20	>24	22	>24	>24	20	13	15	18.0
UNE	23	>24	24	>24	>24	21	14	16	19.6

Notes

1. The FL UNE cross-over is based upon using DS3 access transport rather than UNE DS3 transport because no UNE DS3 transport rates exist in FL
2. The cost of installing a customer premises channel bank and transferring active service were not estimated Such cost could be substantial and would result in an even higher break-even number of telephone lines

row	equipment item	unit cost	DS1 capacity	utilization	cost/DS1	units req'd	cost	capitalized labor	Total	Mtce Factor	equipment life	Monthly Amount
a	channel bank	$ 3,415	1	75%	$4,553.33	1	$4,553.33	$ 683.00	$5,236.33	1.0%	10.18	$ 120.88
b	DS3:1 Multiplexer	$ 6,700	28	85%	$ 281.51	1	$ 281.51	$ 42.23	$ 323.74	1.0%	10.18	$ 7.47
c	OC48	$ 130,000	1,344	85%	$ 113.80	1	$ 113.80	$ 17.07	$ 130.86	0.0%	10.18	$ 1.71
d	FDP	$ 4,021	672	85%	$ 7.04	1	$ 7.04	$ 1.06	$ 8.10	0.0%	23.08	$ 0.08
e	collocation	$ 215,000	6,720	100%	$ 31.99	1	$ 31.99	$ 4.80	$ 36.79	0.0%	23.08	$ 0.34
f	fiber (2 -24 strand)	$ 392,488	6,720	85%	$ 68.71	1	$ 68.71	$ 10.31	$ 79.02	0.0%	23.08	$ 0.73
g	FDP	$ 4,021	672	85%	$ 7.04	1	$ 7.04	$ 1.06	$ 8.10	0.0%	23.08	$ 0.08
h	OC48	$ 130,000	6,720	85%	$ 22.76	1	$ 22.76	$ 3.41	$ 26.17	0.0%	10.18	$ 0.34
I	3:1 DCS	$ 244,776	1,024	85%	$ 281.22	4	$1,124.89	$ 168.73	$1,293.62	0.0%	10.18	$ 16.93
j	Hub concentrator	$ 106,800	168	85%	$ 747.90	1	$ 747.90	$ 112.18	$ 860.08	0.0%	10.18	$ 11.25
k	Node (collo equiv)	$ 215,000	6,720	100%	$ 31.99	1	$ 31.99	$ 4.80	$ 36.79	0.0%	23.08	$ 0.34
							$6,990.97	$ 1,048.65	$8,039.61			$160.15

row	Item	TX	CA	NY	MA	IL	MI	GA	FL
aa	Cost/DS1 UNE-L	$85.29	$ 109.10	$ 103.47	$ 82.10	$74.70	$67.96	$75.75	$76.70
bb	Facility cost	$160.15	$160.15	$160.15	$160.15	$160.15	$160.15	$160.15	$160.15
cc	Cost/DS1	$245.44	$269.25	$263.62	$242.26	$234.85	$228.11	$235.90	$236.85
dd	Cost/VG UNE-L	$12.46	$10.71	$12.29	$9.24	$3.54	$11.53	$18.31	$15.82
ee	**Cross-over**	**20**	**>24**	**22**	**>24**	**>24**	**20**	**13**	**15**

Common Assumptions:

Capitalize labor (% of eqpt cost)	15.00%	
Cost of money	10.01%	
Customer-shared Infrastrucutre Utilization	85%	
Channel Bank Utilization	75%	[Thus should approximate the cross over DS0 count/24]
Customer Life (years)	5	

Notes

1. Line (aa) post from sheet computing UNE Cost/DS1
2. Line (cc) = sum of lines (aa) and (bb)
3. Line (dd) posted from sheet computing UNE Cost/VG UNE-L
4. Line (ee) = Line (cc) divided by line (dd) rounded to the next higher integer. If the result exceeds 24, then the word "none" is displayed
5 If a DS1 UNE-L was rate for the state was not available, the DS1 channel term rate was substituted.
6. The cost of installing a customer premises channel bank and transferring active service were not estimated
   Such cost could be substantial and would result in an even higher break-even number of telephone lines

row	Item	TX	CA	NY	MA	IL	MI	GA	FL
	UNE-L (voice Grade)								
a	Loop recurring	$ 12.14	$ 9.87	$ 11.83	$ 7.54	$ 2.59	$ 10.90	$ 16.84	$ 13.75
b	Cross-connection (recurring)	$ -	$ 0.44	$ 0.15	$ 0.27	$ 0.14	$ 0.18	$ 0.30	$ 0.05
c	Loop NRC	$ 15.03	$ 18.72	$ 14.56	$ 67.18	$ 38.25	$ 20.98	$ 42.54	$ 83.20
d	Cross-connection NRC	$ -						$ 12.60	$ 11.57
e	**Cost/VG UNE-L**	**$12.46**	**$10.71**	**$12.29**	**$9.24**	**$3.54**	**$11.53**	**$18.31**	**$15.82**
	UNE-L (DS1)								
f	Loop recurring	$ 76.22	$ 90.27	$ 98.32	$ 76.11	$ 73.46	$ 52.98	$ 55.33	$ 64.69
g	Cross-connection (recurring)	$ 7.51	$ 16.52	$ 0.94	$ 1.21	$ 0.43	$ 0.42	$ 8.00	$ 0.12
h	Loop NRC	$ 73.25	$ 108.72	$ 198.05	$ 225.10	$ 38.25	$ 685.18	$ 429.28	$ 540.00
I	Cross-connection NRC							$ 155.00	$ 19.50
j	**Cost/DS1 UNE-L**	**$85.29**	**$109.10**	**$103.47**	**$82.10**	**$74.70**	**$67.96**	**$75.75**	**$76.70**
	UNE Transport								
k	DS3 Transport - Fixed	$ 417.24	$ 372.70	$ 911.00	$ 996.54	$ 146.93	$ 66.69	$ 788.00	$ 1,130.00
l	DS3 Transport - Per Mi	$ 9.29	$ 35.72	$ 20.10	$ 20.44	$ 29.81	$ 10.94	$ 2.72	$ 4.25
m	Transport NRC	$ 170.28	$ 67.98	$ 261.65	$ 552.84	$ 1,356.63	$ 714.36	$ 511.10	$ 562.06
n	Miles	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
o	DS3:1 Mux	$ 365.11	$ 287.88	$ 223.52	$ 236.69	$ 404.30	$ 214.34	$ 182.04	$ 299.24
p	Mux NRC	$ 777.51	$ 84.33	$ 124.97	$ -	$ -	$ -	$ 265.91	$ 210.77
q	DS3 Cross-Conn	$ 25.70	$ 45.80	$ 20.42	$ 17.26	$ 0.76	$ 1.67	$ 11.02	$ 9.50
r	DS3 Cross-conn NRC	$ -	$ -	$ -	$ -	$ -	$ -	$ 12.02	$ -
s	Utilization	85%	85%	85%	85%	85%	85%	85%	85%
t	Life (years)	10.18	10.18	10.18	10.18	10.18	10.18	10.18	10.18
u	DS3 Component Cost per DS1	$ 41.47	$ 57.94	$ 29.88	$ 27.20	$ 17.75	$ 10.68	$ 18.97	$ 22.19
cc	UNE DS1 EELs	$126.75	$167.04	$133.35	$109.31	$92.45	$78.64	$94.72	$98.88
	Customer Channel Bank	$ 120.88	$ 120.88	$ 120.88	$ 120.88	$ 120.88	$ 120.88	$ 120.88	$ 120.88
dd	Collocation /DS1	$ 0.34	$ 0.34	$ 0.34	$ 0.34	$ 0.34	$ 0.34	$ 0.34	$ 0.34
ee	CLEC Node/DS1	$ 28.52	$ 28.52	$ 28.52	$ 28.52	$ 28.52	$ 28.52	$ 28.52	$ 28.52
ff	interoffice fiber/DS1	$ 2.94	$ 2.94	$ 2.94	$ 2.94	$ 2.94	$ 2.94	$ 2.94	$ 2.94
gg	Total Cost/DS1	$279.43	$319.72	$286.03	$261.99	$245.13	$231.32	$247.40	$251.56
hh	UNE Cross Over	**23**	**>24**	**24**	**>24**	**>24**	**21**	**14**	**16**

Cost of money		10.01%
Customer Life (years)		5
Shared Infrastrucutre Utilization		85%
Backhaul Life (years)		10.18
Backhaul Distance		0.00
Collocation/DS1	$	0.34
CLEC Node/DS1	$	28.52
Interoffice fiber/DS1	$	2.94
Customer Premises Channel bank	$	120.88

Notes:

1. The FL UNE cross-over is based upon using DS3 access transport rather than UNE DS3 transport because no UNE DS3 transport rates exist in FL
2. No DS3:1 UNE mux and mux cross-connection charges exist in GA. Special access mux charges used as a proxy
3. The cost of installing a customer premises channel bank and transferring active service were not estimated Such cost could be substantial and would result in an even higher break-even number of telephone lines

		UNE-loops							D
		VG loop	VG X-conn	VG NRC	3 x-con NF	DS1 loop	DS1 X-conn	DS1 NRC	1 x-con NI
Verizon	NY	$ 14.36	$ 0.15	$ 14.36	$ 102.46		$ 0.94	$ 198.05	
	Zone1a	$ 11.89				$ 98.32			
	Zone 1b	$ 12.49				$ 98.32			
	Zone 2	$ 19.24				$ 112.29			
	MA	$ 14.98	$ 0.27	$ 67.18	$ 101.59		$ 1.21	$ 225.81	
	Metro	$ 7.54				$ 76.14			
	Urban	$ 14.11				$ 98.05			
	Suburban	$ 16.12				$ 102.64			
	Rural	$ 20.04				$ 147.05			
	NJ	$ 16.02	$ 0.84	$ 32.16		$ 150.23	$ 21.60	$ 170.42	
	PA	$ 14.61	$ 0.40	$ 68.72		$ 148.37	$ 14.77	$ 68.72	
	VA	$ 13.28	$ 0.67	$ 58.36		$ 144.80	$ 16.81	$ 118.31	
SBC	TX								
	Urban	$ 12.14	$ -	$ 15.03		$ 76.22	$ 7.51	$ 73.25	
	Surburban	$ 18.98				$ 76.96			
	Rural	$ 13.65				$ 75.81			
	MI	$ 12.91	$ 0.18	$ 20.98		$ 65.49	$ 0.42	$ 685.18	
	Area A	$ 10.90				$ 52.98			
	Area B	$ 11.79				$ 67.07			
	Area C	$ 15.33				$ 70.78			
	IL	$ 9.10	$ 0.14	$ 38.25		$ 61.86	$ 0.49	$ 38.25	
	Area A	$ 2.59				$ 73.46			
	Area B	$ 7.07				$ 61.45			
	Area C	$ 11.40				$ 61.56			
	CA								
	Zone1	9.87	0.44	18.72	0.16	90.27	16.52	109.72	
	Zone 2	13.28				98.23			
	Zone 3	23.13				119.5			
BellS	FL								
	Zone 1	$ 19.75	$ 0.05	$ 83.20	$ 11.57	$ 64.69	$ 0.12	$ 540.00	$ 19.50
	Zone 2	$ 20.13				94.71			
	Zone 3	$ 44.40				$ 208.93			
	GA								
	Zone 1	$ 16.94	$ 0.30	$ 42.54	$ 12.60	$ 55.33	$ 8.00	$ 429.26	$ 155.00
	Zone 2	$ 19.45				$ 64.13			
	Zone 3	$ 30.92				$ 101.93			
	GA-EELs	$ 11.96	N/A	$ 12.97	N/A	$ 52.40	N/A	$ 12.97	N/A
	NC	$ 15.88	$ 0.32	$ 57.99	$ -	$ 62.78	$ 2.34	$ 714.84	$ 71.02
	TN	$ 18.00	$ 0.05	$ 41.50	$ -	$ 46.40	$ 7.95	$ 254.31	$ 47.70
Qwest	CO	$20.65	$ 0.84	$ 70.00	$ -		$ 8.37		
	zone 1	$19.65							
	zone 2	$26.65							
	zone 3	$38.65							
	zone 4	$84.65							

	WA	$ 18.16	$ 1.41	$ 37.58		$ 9.12		
	zone1	$ 7.50						
	zone 2	$ 13.89						
	zone 3	$ 15.73						
	zone 4	$ 17.78						
	zone 5	$ 24.18						
	OR	$ 15.00	$ 0.12	$ 188.83	$ 92.41	$ 1.01	$ 579.75	
	zone 1	$ 14.36						
	zone 2	$ 25.83						
	zone 3	$ 50.16						
	MN	$ 17.87	$ 0.05	$ 11.46		$ 0.40	$ 74.08	
	zone 1	$ 8.81						
	zone 2	$ 12.33						
	zone 3	$ 14.48						
	zone 4	$ 21.91						

S1-transport			DS1:0			DS3 transport			DS3:1
fixed	per mi	NRC	mux	x-conn	NRC	fixed	per mi	NRC	mux
$ 110.00	$ 0.72	$ 246.45	$ 349.59	$ 0.94	$ 46.10	$ 911.00	$ 20.10	$ 261.65	$ 223.62
$ 126.85	$ 0.73	$ 373.31	$ 446.78	$ 1.21	$ -	$ 996.54	$ 20.44	$ 552.84	$ 236.69
$ 39.83	$ 0.48	$ 412.56	$ 84.54	N/A	$ 557.17	$ 529.78	$ 13.40	$ 412.56	$ 286.11
$ 35.22	$ 0.60	$ 359.03	$ 73.28	N/A	$ 555.73	$ 489.55	$ 16.94	$ 359.03	$ 242.57
$ 35.10	N/A	$ 227.60	$ 53.77	N/A	$ 452.23	$ 604.53	N/A	$ 227.60	$ 185.73
$ 38.15	$ 0.35	$ 174.43	$ 81.15	$ 7.51	$ 96.84	$ 417.24	$ 9.29	$ 170.28	$ 365.11
$ 41.84	$ 0.94	$ 174.43	$ 81.15	$ 7.51	$ 96.84	$ 452.03	$ 16.16	$ 170.28	$ 365.11
$ 44.49	$ 3.11	$ 174.43	$ 81.15	$ 7.51	$ 96.84	$ 692.87	$ 58.59	$ 170.28	$ 365.11
$ 12.55	$ 0.41	$ 685.18	$ 279.15	$ 0.42		$ 66.69	$ 10.94	$ 714.36	$ 214.24
$ 17.35	$ 1.88	#######	$ 275.34	$ 0.43		$ 146.93	$ 29.81	########	$ 404.30
32.32	1.84	68.35	255.58	16.52	80.28	372.7	35.72	87.96	287.88
$ 101.61	$ 0.60	$ 45.91	$ 154.74	$ 1.46	$ 196.83	$ 1,130.00	$ 4.26	$ 562.06	$ 299.24
$ 78.47	$ 0.45	$ 147.07	$ 126.22	$ 2.20	$ 212.54	$ 788.00	$ 2.72	$ 511.10	$ 182.04
$ 63.39	$ 0.31	N/A	$ 18.23	$ 2.20	N/A	$ 717.60	$ 6.46	$ 12.97	$ 202.91
$ 71.29	$ 0.58	$ 217.17	$ 158.01	$ 1.28	$ 240.40	$ 720.38	$ 12.98	$ 794.94	$ 241.81
$ 77.86	$ 0.36	$ 112.40	$ 165.21	$ 1.25	$ 209.82	$ 840.61	$ 6.88	$ 723.44	$ 185.94
$ 37.66	$ 0.68		$ 180.24		$ 289.36	$ 256.19	$ 14.17		$ 180.64

$ 33.12	$ 0.51		$ 175.23	$ 212.11	$ 224.72	$ 10.60			$ 170.88
$ 37.94	$ 0.49	$ 335.00	$ 212.76	$ 310.43	$ 253.13	$ 9.95	$ 335.00	$ 203.54	
$ 168.36		$ 12.85	$ 203.47	$ 295.92	$ 3,009.70		$ 12.85	$ 213.71	

x-conn	mux NRC	x-conn NRC
[illegible]	[illegible]	
[illegible]	[illegible]	
N/A	$ 557.17	
N/A	$ 555.73	
N/A	$ 452.23	
[illegible]	[illegible]	
$ 25.70	$ 777.51	
$ 25.70	$ 777.51	
$ 25.70	$ 777.51	
[illegible]	[illegible]	
[illegible]	[illegible]	
[illegible]	[illegible]	
[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]
$ 0.67	N/A	
$ 8.93	$ -	
$ 9.03	$ 81.08	
[illegible]	[illegible]	

[redacted]	$ 219.60
	$ 317.81
	$ 302.96